

Mineral Resources Information and Socioeconomic Development

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The contribution of mining to sustainable development needs to be considered in terms of economic and technical viability, ecological sustainability, and social equity. Governments, mining companies, and local communities, as well, must work and cooperate on these issues through the different stages of a mining project and over a considerable time span, extending from exploration to mine operation and to postmine closure. As shown by World Bank's experience in mining sector development in recent years, such principles have to be taken into account even at the very early stages of regional mineral resources assessment.

Sustainable resource use planning requires that areas of mineral potential be evaluated in the context of existing and alternative land use options, integrating social, environmental, cultural, and economic factors. Civil society and governments are increasingly aware that minerals form only one component of a country's resources. An integrated approach that calls for a strategic and participatory process of analysis, debate, capacity strengthening, planning, and action, involving all stakeholders, including local communities, is the only way to optimize mineral resources exploitation from a sustainable development point of view and to identify and avoid potential conflicts in land use. To develop such a process in a rational

and fair manner inevitably requires accurate data depicting the available resource base, as well as the transparent and open sharing and coordination of multiuser information.

Ensuring the availability of strategic information with respect to mineral resources constitutes one of the main mandates of most national geological survey organizations. The World Bank long has recognized the importance of geological surveys as "enablers" to provide the required data to make well-informed decisions regarding sustainable land and resource use and, within the framework of mining sector reforms, has provided loans to development projects that include the strengthening of these institutions, the collation and dissemination of regional multidisciplinary geoscientific data, and the development of information and management systems. The availability of modern and reliable geoscientific data not only enhances the capacity to assess and manage mineral resources but also is applicable to agriculture, forestry, environmental and health risk analysis, conservation, and land use planning.

A recent and particularly illustrative case history is represented by the development in Ecuador of such an integrated geoscientific database by the National Directorate of Geology, with the assistance of the British Geological Survey. Other examples include Argentina, Bolivia, Burkina Faso, Mauritania, Mozambique, and Papua New Guinea.

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